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Notice of Allowability

Application No.

10/073,007

Examiner

Ronald Laneau

Applicant(s)

KANEDA ET AL.

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/14/06.
2. ☒ The allowed claim(s) is/are 7-9 now renumbered as 1-3.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Ronald Laneau

Ronald Laneau
Primary Examiner
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3/18/07

Reasons for Allowance

1. Claims 7-9 are allowed now renumbered as 1-3.

The following is an examiner's statement of reasons for allowance:

None of the references, either singularly or in combination, discloses the totality of combined elements as the following: an operating/managing method in an operating/managing system of a plurality of storage apparatuses, comprising the steps of:

As per claims 7-9, holding address information of an address of the specified storage apparatus in storage apparatus information holding means of said operating/managing system; holding information concerning a property of each of said at least two storage apparatuses connected to said at least two storage apparatuses connecting means in property holding means of said operating/managing system; causing a desired property to be specified from said computer for use in selecting a storage apparatus to be used next having a property that satisfies the desired property causing a particular storage apparatus to be selected from among candidates of storage apparatuses indicated from said operating/managing system by comparing the desired property to the property of each of said at least two storage apparatuses held in said holding means and selecting a storage apparatus having a property that satisfies the desired property as the storage apparatus to be used next; holding address information of an address of the selected storage apparatus to be used next in said storage apparatus information holding means in addition to the address information of the address of said storage apparatus in use at present; requesting the selected storage apparatus to create a volume; and instructing the selected storage apparatus to start duplication of data, wherein connection destination switching means of said operating/managing system creates a copy of data sent from the computer and changes a source

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address and a destination address of the copy of data to an address of a corresponding storage apparatus connecting means and the address of the selected storage apparatus to be used next respectively, thereby changing a path of communication between said computer and said storage apparatus in use at present to another path of communication between said computer and the selected storage apparatus to be used next, wherein said operating/managing system communicates with the selected storage apparatus and writes the copy of data into said selected storage apparatus, and wherein information duplicating means of said operating/managing system controls reading-out of data from said storage apparatus in use at present and writing-in of said data into said storage apparatus to be used next based on said address information held in said storage apparatus information holding means.

The closest prior art, Fowler (US 2003/0126394 A1), Fowler discloses a system and method for remotely configuring storage space in multiple storage devices, said multiple storage devices include free storage space and storage space allocated to a user for storing data from a user, where the user is located at a site remote from the storage devices; a portion of the free storage space is automatically transferred to the allocated storage space in response to a request by the remote user to increase the size of the allocated storage space, but fails to disclose the above claimed features.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Yamagami (US 7,096,269 B2) discloses techniques for managing data flow over a plurality of connections between primary and remote storage devices.
- Eguchi et al (US 6,895,483 B2) discloses a method and apparatus for data relocation between storage subsystems.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Laneau whose telephone number is (571) 272-6784. The examiner can normally be reached on 7:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner
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